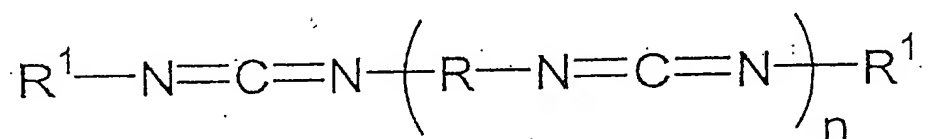WHAT IS CLAIMED IS:

1. A microlens array having a resin layer forming convex lenses, wherein the resin layer comprises a cured product of a polycarbodiimide resin represented by formula:

$$R^1—N=C=N—(R—N=C=N)_n—R^1$$

wherein R represents a diisocyanate residue; $R^1$ represents a monoisocyanate residue; and n represents an integer of 1 to 100.

2. The microlens array according to claim 1, wherein the resin layer has a refractive index of 1.70 or greater.

3. The microlens array according to claim 2, wherein the refractive index of the resin layer is from 1.70 to 1.85.

4. The microlens array according to claim 1, wherein the diisocyanate residues comprises aromatic diisocyanate residues in an amount of 10 mol% or higher.

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5. The microlens array according to claim 4, wherein all the diisocyanate residues are aromatic diisocyanate residues.

6. The microlens array according to claim 1, wherein the diisocyanate residues comprises at least one member selected from the group consisting of a tolylene diisocyanate residue, a 4,4'-diphenylmethane diisocyanate residue, and a naphthalene diisocyanate residue.

7. The microlens array according to claim 6, wherein the diisocyanate residues comprises a naphthalene diisocyanate residue.

8. The microlens array according to claim 1, wherein the monoisocyanate residues are aromatic monoisocyanate residues.

9. The microlens array according to claim 8, wherein the aromatic monoisocyanate residues are 1-naphthyl isocyanate residues.